

## **REMARKS**

### Claim Rejections – 35 USC § 103

Claims 1-6 were rejected under 35 U.S.C. 103(a) as allegedly being unpatentable over Kay et al (U.S. Patent No. 5,703,881, hereinafter “Kay”) in view of Pickering et al. (U.S. Patent No. 6,738,457, hereinafter “Pickering”).

Applicant respectfully traverses the rejections.

In the Amendment filed June 22, 2006, the claims were amended to more clearly recite that the feature extraction and voice activity detection occur at a user device by including a limitation relating to receiving a speech signal from a user through a microphone.

The Action essentially ignores this added limitation by equating a microphone to a voice activity detector.

The term “voice activity detector” is a term of art in the telecommunication device industry, and is used in that capacity in both the Specification and in Kay. “Voice activity detection or voice activity detector is an algorithm used in speech processing wherein, the presence or absence of human speech is detected from the audio samples.” ([http://en.wikipedia.org/wiki/Voice\\_activity\\_detection](http://en.wikipedia.org/wiki/Voice_activity_detection) (emphasis added)). As described in the Specification at page 12, lines 2-4, “The VAD module 106 divides the input speech into segments comprising frames where speech is detected and the adjacent frames before and after the frame with detected speech.” And as described at column 7, lines 41-43, “The voice activity detector 56 sends voice activity detection, i.e., start of speech and end of speech indications.” These usages of the term “voice activity detector” are consistent with the definition of an algorithm that utilizes audio samples to detect the presence or absence of speech, but not with the definition of a microphone, i.e., a device that converts audio waves including human speech into electrical signals.

Thus, the plain meaning of the claim term “voice activity detector” is not consistent with the Action’s characterization of a “voice activity detector” being equivalent to a microphone.

With regard to the Action’s Response to Arguments section, Applicant submits that the claims are directed to a distributed voice recognition system, and this feature is inherent in the “wireless transmitter/transmitting” clauses in the claims, e.g., in claim 1, “a wireless transmitter coupled to the feature extraction module and the voice activity detection module and configured

to transmit to a speech recognition device over a wireless network the indication of detected voice activity ahead of the plurality of features.” Wireless transmission of extracted features and voice activity information would be unnecessary in a non-distributed system.

Accordingly, Applicant submits that claims 1-6 are allowable for the reasons set out in the Amendment filed June 22, 2006.

### CONCLUSION

In light of the amendments contained herein, Applicants submit that the application is in condition for allowance, for which early action is requested.

Please charge any fees or overpayments that may be due with this response to Deposit Account No. 17-0026.

Respectfully submitted,

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